Centre for Research on Peace and Development (CRPD)

Food Price Rises and Political Instability: Problematizing a Complex Relationship

Leila Demarest

PhD Fellow Research Foundation Flanders

CRPD Working Paper No. 17

January 2014

Centre for Research on Peace and Development (CRPD)
KU Leuven
Parkstraat 45, box 3602, 3000 Leuven, Belgium
Phone: +32 16 32 32 50; Fax: +32 16 32 30 88; http://www.kuleuven.be/crpd

Food Price Rises and Political Instability: Problematizing a Complex Relationship

Leila Demarest

Abstract:

Recent spikes in international food prices and the occurrence of 'food riots' in the period 2007-2008 has led many researchers to investigate the links between food prices and conflict or political instability more closely. However, this emerging literature suffers from a number of flaws and misunderstandings. The objective of this paper is to discuss these further and offer ways of addressing them. I focus on three main issues: firstly, the vague use of concepts such as 'political instability' or 'conflict', which leads to conceptual and empirical confusion. In addition, specific doubts are placed on the usefulness of the 'food riot' concept. Secondly, the often uncritical data gathering based on international media sources. And thirdly, the issue of presupposed and understudied causal mechanisms and a general neglect of the importance of context.

Author Information:

Leila Demarest is PhD Fellow of the Research Foundation Flanders (FWO) at the Centre for Research on Peace and Development (CRPD), University of Leuven.

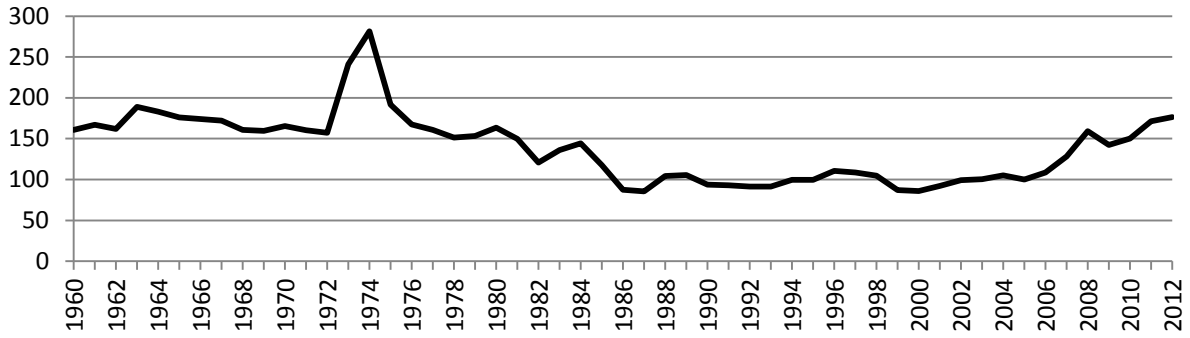
Food Price Rises and Political Instability: Problematizing a Complex Relationship

Leila Demarest

1. Introduction

Recent spikes in international food prices have caused widespread concern. After a long period of decline starting in the mid-1970s, agricultural prices began increasing in the year 2000 (see Figure 1). Prices rose sharply in 2007 and peaked halfway through 2008. Due to the financial and economic crisis, food prices decreased briefly, yet they rose again steeply from 2010. Since then, they have remained on a high level. This is expected to last in the future because of factors such as climate change, increasing demand, and slowing production (see e.g. OECD/FAO, 2013).

Figure 1. Long-term evolution of food prices (1960-2011), 2005 = 100, real 2005$



Source: World Bank, Global Economic Monitor (GEM) Commodities, 2013.

The period 2007-2008 raised attention to the risks posed by soaring food prices. Putting a limit to the rise of food prices and mitigating its impact on food security and malnutrition acquired a prominent place on the global policy agenda. The FAO, for example, launched its “Initiative on Soaring Food Prices” in December 2007, the UN convened the High Level Task Force on the Global Food Security Crisis in April 2008, and the European Union established a food facility budget line in December 2008. The causes and economic consequences of the international food price rise have been widely studied and debated, including controversial issues such as the extent to which biofuel production and speculation in international financial markets contributed to rising prices (see e.g. FAO 2008a, 2011; World Food Programme, 2009). Yet, the increase in food prices in 2007-2008 also drew attention to the potential for mass protests and violent riots.

‘Food riots’ received considerable media attention at the time and the causal link between rising food prices and violent conflict or political instability was often regarded as self-evident by journalists as well as policymakers (see e.g. Hoyos & Blas, 2008; Lacey, 2008). Illustratively, Jacques Diouf, the Director-General of the FAO from 1994 until 2011, stated for example that *“Naturally people won't be sitting dying of starvation, they will react."* (in: Pomeroy, 2008) and referred directly to the possibility of civil war as a consequence of the food price rise (The Economic Times, 2008). A World Food Program food security analyst cited in the New York Times made similar remarks: *“The human instinct is to survive, and people are going to do no matter what*

to survive. And if you're hungry you get angry quicker." (in: Lacey, 2008). Later events during the Arab Spring were linked to food price rises as well (see e.g. The Economist, 2012). These comments fit into a popular neo-Malthusian line of thinking in which it is assumed that factors such as resource scarcity and overpopulation will lead to widespread chaos and violence (see for example Ehrlich 1968; Kaplan 1994). Yet although this perspective has a certain intuitive appeal - we assume the deprived will not stand idly by in misery without resorting to (violent) action- the issue appears to be far more complex when individual cases are being analyzed.

The 2007-2008 food price spike has also inspired many researchers to investigate the causal relationship between international food price rises and the occurrence of various forms of conflict and political instability. While this literature has contributed to our understanding of this relationship, there are a number of flaws and misunderstandings shared with the more popular neo-Malthusian comments above. The objective of this paper is to discuss these further and offer ways of addressing them. I will focus on three main issues: the vague use of concepts, uncritical data gathering, and presupposed and understudied causal mechanisms.

All too often researchers use notions of 'conflict', 'instability', or 'unrest' interchangeably without clear specifications. The concept of 'food riot' is particularly troublesome and I argue that while this term might have a certain attention-raising purpose for the media, its use is disputable in scientific debate. Connected to this latter issue is the fact that many researchers rely too much on vague news reports to identify food riots without critically assessing the actual events that took place and whether the food issue is really the cause for conflict. I demonstrate these issues in particular for the events that took place in Africa during the period 2007-2008. Finally, with regards to causal mechanisms involved, the relationship between international food price rises and conflict is too easily assumed to be a relationship between food insecurity and conflict. Moreover, although several authors have already indicated important intervening variables, our overall understanding of the causal mechanisms at work remains limited. I draw lessons from closely related literatures, in particular from the literature focusing on resource scarcity and conflict, and the 'third wave' of democratization, to show that when economic factors are chosen as the starting point of analyses, one has to advance other contextual factors to explain conflict (non-) occurrence. Yet while economic factors are often acknowledged as 'triggers' in the literature, research efforts on identifying relevant intervening variables have not advanced much further, leaving us with only vague conceptualizations of 'context'. Hence, more research is needed on defining which 'contexts' or which 'intervening' variables are likely to lead to different forms of conflict.

The paper is structured as follows: In Section 2, I review the current state of the art on food price rises and political instability. In section 3, I show how the indiscriminate use of '(violent) conflict' and 'political instability' leads to conceptual and empirical confusion. I specifically address the 'food riot' concept. Section 4 revisits the 2007-2008 'food riots' in Africa and indicates several crucial problems with research on these events based on actual case descriptions. Section 5 focuses on the causal mechanism between international food price increases and conflict. Section 6 concludes and indicates different avenues for future research.

2. Food Prices and Violent Conflict: Conceptual and Empirical State of the Art

Neo-Malthusian works predicting a future of conflict and chaos due to natural resource depletion, population growth, and urbanization such as Kaplan's *The Coming Anarchy* (1994), Ehrlich's *The Population Bomb* (1968), or Davis' *Planet of Slums* (2006), have always engendered widespread attention from the general public and policymakers, but also from academics, who try to test these claims scientifically. It was therefore not very surprising that the food protests taking place in the period 2007-2008 simultaneously led to comments by journalists and political players defending the natural link between hunger and violence, and to a new surge of academic studies concerning the linkages between food insecurity and violent conflict or political instability. Several researchers

have in their work reflected on the history of food and conflict and have traced this back to early eighteenth century European food riots (see e.g. Bellemare, 2011; Patel & McMichael, 2009)[1]. It is worthwhile discussing this literature before turning to more recent studies.

Early Western European food riots were often -and similar to the current period- seen as direct consequences of hunger, but this line of thinking has already been questioned by several prominent social scientists. In his work on eighteenth century food riots in England for example, Thompson (1971) refuted the, as he called it, 'spasmodic' approach often brought forward by historians and journalists working on these events. According to him, the food riots by the English crowd in the eighteenth century were not simply instinctive reactions to hunger or a result of 'degeneration', but were legitimized by the belief of the participants "*that they were defending traditional rights and customs; and, in general, that they were supported by the wider consensus of the community*" (p. 78). Protesters were defending their view on how the (food) economy should function: a community in which poor consumers were protected from food shortages or high prices. This is what Thompson famously termed 'the moral economy'. Riots in eighteenth century Europe should be understood as a reaction to the effects of the slow transition from a paternalist food economy with price controls to a laissez-faire market system.

L. Tilly (1971), and C. Tilly (1976) also argued against rioting as an instinctive reaction to hunger in the case of early European food riots: the worst famines were over by that time and per capita food supply was probably increasing. Instead, they frame these in the context of state centralization, the decline of traditional paternalistic economic policy (Thompson's moral economy), and the formation of a national market. For the French Revolution – sometimes seen as a large-scale 'food riot'- Rudé (1959) has similarly stated that the essential motive for participation of the masses in the French Revolution was the need for cheap bread, although he opposes views that see the 'masses' as simple followers of revolutionary leaders out of hunger, or because of bribery and loot-seeking.

Walton and Seddon's (1994) *Free Markets and Food Riots* is also commonly cited in current studies. The authors investigate why, starting in the mid-1970s, demonstrations, strikes and violent riots occurred in some developing countries but not others as a result of the imposition of structural adjustment programs by the international financial institutions (and their implementation by local elites). They find that IMF pressure and overurbanization form the best predictors of austerity riots. These factors are seen as indicators of economic distress: higher IMF pressure proxies for severe reform demands, while overurbanization is seen as an indicator of a large mass of unemployed urban poor ready to take part in riots. The authors do not just provide an economic account of the austerity protests in the developing world, but introduce two nuances. For the first they make use of the moral economy argument. Just as the replacement of paternalist economic policy to a laissez-faire regime in eighteenth and nineteenth century Europe led to the emergence of food riots, so did the introduction of neoliberal policies with the SAPs ('Free Markets') lead to austerity protests in Third World countries. The prior, pre-SAP moral economy in this case was one of 'urban bias'. A second nuance to the economic account of austerity protests focuses on collective action and the ways through which this is facilitated. Using evidence from case studies, Walton & Seddon (1994) argue that austerity protests required a strong organizational capacity to mobilize. Therefore, countries, and more precisely cities, with a strong civil society (unions, political groups, community associations, churches etc.) seemed more prone to protests.

Since 2008, several quantitative studies have strengthened the link between international food price rises and various measures of 'unrest'. Lagi et al. (2011), for example, have calculated an international food price threshold that when crossed is likely to lead to political instability in the world. They base their analyses on violent events during the 2007-2008 food price rise and the subsequent price rise in 2010 to which the Arab Spring is linked. The authors rely on media reports

[1] Or even the provision of 'bread and circuses' in ancient Rome (Brinkman & Hendrix, 2010, pp. 3-4).

for data collection. However, the study gathers events throughout the world and no economic, political or social intervening variables[2] are used.

Other authors have tried to incorporate intervening variables. For a panel of over 120 countries during the period 1970-2007, Arezki & Brückner (2011) find a significant effect of rising international food prices on the decline of a country's democracy score, the occurrence of civil war, and the number of anti-government demonstrations and riots only for a panel of Low-Income countries. Their study thus indicates a first important intervening variable: national level of income. Carter & Bates (2012) build further on this study and argue that when controlled for government policies tempering price rises, there is no relationship between food price shocks and civil war.

Hendrix, Haggard & Magaloni (2009) analyze the relationship between fluctuations in international food prices and urban social disorder in Africa and Asia for the period 1960-2006. They find that the relation between international food price fluctuations and unrest is contingent on regime type, as hybrid regimes combining authoritarian and democratic characteristics are found to experience significantly more protests. It is argued that these regimes lack the capacity of authoritarian states to repress protests and the participatory institutions of democracies to hold leaders accountable in other ways.

Finally, a study of Berazneva & Lee (2013) specifically focuses on Africa during the period 2007-2008 and find that the country score on the Human Poverty Index, the presence of a large urban agglomeration, and the amount of foreign aid per capita positively correlate with protest occurrence. The national score on the Freedom House Political Rights Index, the Food Production Index per capita, and the country location in Sub-Sahara Africa (relatively more protests took place in North Africa) have a negative correlation. Different theoretical explanations are combined in these results: a low Human Poverty Index score indicates increased vulnerability to rising food prices; a large urban agglomeration is connected to the urban collective action account (see above); Freedom House Score reflects regime type[3]; and the Food Production Index per capita is intended to indicate reliance on food imports.

Some of the qualitative accounts of the 2007-2008 protests emphasize more local-level intervening characteristics and causal mechanisms. For example, Harsch (2008) focuses on protests in African countries and links these to problems of governance. According to the author, protests are not just expressions of dissatisfaction with higher costs of living, but also reflect underlying discontent with authoritarian and corrupt politics. He also notes that where governments took up dialogue with civil society actors, protests stayed out or were more peaceful. Bush (2010), and Patel and McMichael (2009) trace the 2007-2008 food protests to the current neoliberal food regime. While the international food system increases developing countries vulnerability to the consequences of international food price fluctuations, both studies also interlink the political consequences to local-level societal characteristics, such as regime type and pre-existing modes of social organization (confer Walton & Seddon, 1994).

This state of the art comprises the currently most cited studies on the relationship between international food price rises and conflict. Many researchers have already made substantial efforts at identifying relevant intervening variables, based on the earlier literature on food and conflict, and conflict research more general. In the following sections, however, I critically review this emerging literature on three levels: the use of concepts, the gathering of data, and the specification of causal mechanisms.

[2] An intervening variable is understood here as a moderating variable (versus a mediating variable).
[3] Note that most regimes called 'authoritarian' are often hybrid regimes according to the classification of Polity IV scores.

3. Violent Conflict and Political Instability: Conceptual Clarifications

Many popular commentators easily make the jump between 'riots', 'political violence', 'crime', 'coup d'états', or 'civil war'. Academics can, however, cause similar conceptual confusion. In the current literature on food prices and conflict, the dependent variable under investigation has been: social unrest, (socio)political instability, (food) protests and riots, civil war, and authoritarian regime change. It is, however, important to clarify these often vague categories and differentiate them from one another.

A first remark here concerns the conceptualization of conflict, which can manifest itself peacefully or violently. In this regard, peaceful demonstrations can be understood as a valid tactic of a group to signal a conflict and strengthen its position. This does not have to be a cause for concern. Even if we only consider violent conflict, however, a distinction between different types is important as the 'contexts' or the structural conditions, and the causal mechanisms leading to each can also differ substantially - essentially a problem of unit heterogeneity. This has clearly been argued by Collier & Hoeffler (2002) and Collier, Hoeffler & Rohner (2009) who emphasize that grievances alone cannot explain civil war as a distinct category of conflict. Resources are needed to build an insurgency force: financial possibilities, weapons, recruits, a safe refuge haven from government troops…in short: a power base.

Political instability is perhaps an even trickier concept than that of violent conflict. Most intuitively, it reflects an uncertainty about the continuing existence of a political system. It is often associated with regime transitions. In the Polity IV[4] dataset we can equate political instability with the -66 ('interruption periods' between foreign occupation and a new independent polity), -77 ('interregnum periods' during which there is a complete collapse of central political authority, mostly because of civil war), and -88 scores ('transition periods' during which new institutions are planned, legally constituted, and put into effect) (Marshall, Gurr & Jaggers, 2013). Yet it is very difficult to establish whether a new regime has been consolidated. In the case of democratic transition, for example, few observers would adhere to Huntington's (1991) two-turnover test in practice.

Violent conflict and political instability cannot be equated easily. The form of conflict relates to how we evaluate political stability. With reference to a particular territory of the state, it seems logical that where violent (ethnic) clashes occur or armed rebels operate, there is local political instability. Yet, usually political instability is interpreted at the country-level, in terms of the central state (e.g. 'the failed state'). Remote rural conflicts do not necessarily lead to the evaluation that a state is politically unstable, not even civil war if it is contained to a certain region and the conflict is not very active (see also The Polity IV manual, Marshall, Gurr & Jaggers, 2013). The Casamance in Senegal, for example, still hosts a rebellion of the local population, but the conflict simmers and does not lead to an instable evaluation of the country itself[5]. When rebels are relatively successful and able to threaten the central government, there is clear political instability, however.

Low-level, small-scale violence such as violent riots can be argued lo lead to political instability as well. The assumption that many commentators seem to hold is that riots will escalate, grow in numbers and consequently challenge the regime. Yet the jump from one riot to escalation and instability is a big one, and a single riot can just as well be a one-time contained event without further political repercussions. Escalation and instability can also happen with peaceful protests, for example when they are sustained in a 'protest cycle' (see e.g. Tarrow, 2002), but again, one protest does not make the 'cycle'. There is therefore a danger in equating one protest event with (the possibility of) political instability as there is no necessary and automatic connection between them.

[4] The Polity IV Project codes the authority characteristics of states in the world system for purposes of comparative, quantitative analysis (http://www.systemicpeace.org/polity/polity4.htm).

[5] In this regard, it is useful to remark that the Correlates of War definition of civil war (1000 battle-related deaths per year) does not hold; yet, there is smaller-scale armed conflict.

The last important remark here concerns the concept of 'food riot'. Firstly, by reviewing the literature, it becomes clear that the perhaps popular idea of people turning to indiscriminate violence and looting out of hunger rarely seems to hold. Thompson (1971) and Tilly's (1971) food riots, for example, were comprised of attacks on known millers and middlemen suspected of unjust behaviour[6], while goods were sold at a 'fair market price' by the community instead of being simply stolen.

Secondly, 'food riots' have a very different meaning for Walton & Seddon (1994). Although they provide an overview of earlier European food riots, it is not entirely clear whether Walton and Seddon are talking about the same thing. In their work, 'food riots' are used as an encompassing term for demonstrations, strikes and violent riots occurring in developing countries due to the implementation of structural adjustment programs. These austerity protests are also sometimes referred to as 'IMF riots' (Auvinen 1996).

In a way, Walton & Seddon (1994) use 'food riots' more as an attractive term than as a scientific concept. The new economic policies of the SAPs included cutting wages, price subsidies, and public service delivery. The removal of food subsidies occurred quite often, which is why the term 'food riot' was chosen. The food issue is not always exactly what caused the contentious action, however. And even if it did, the form of protest does not relate anymore to seventeenth and eighteenth century European food riots. One could say that the 'repertoire' (Tilly, 1993, p. 264) of the food riot has changed, and is now seen in the form of commonly known anti-government actions. Importantly, for Walton & Seddon, this can also include peaceful actions.

As I will argue in the next section, the 'food riots' of the period 2007-2008 correspond more to Walton & Seddon's (1994) conception of the term than to those of Thompson (1971) or Tilly (1971). This is characterized by a lot of vagueness about the possible form of contentious action (demonstration, riot, strike…) and the issue at hand (food, wages, tax increases…), which renders its usefulness as a scientific concept doubtful. Therefore, we should be careful with (sensational) statements such as 'the food riot has returned'.

4. Revisiting the 2007-2008 'Food Riots'

2007-2008 is commonly known as the period when widespread food riots shook the world. As I will argue in this section, however, the extent to which protests fit into the 'food riot' frame is unclear for a number of reasons: reliable data collection on 'food protests' is difficult to establish; violent and peaceful protests are often lumped together; even in violent cases government repression often has more to do with the violence element than the desperation of the poor; and the degree to which food is actually the main issue behind popular mobilization can seem remarkably dubious in some cases.

Many researchers acknowledge that the period 2007-2008 saw a mixture of violent and peaceful food protests. Yet, they often add the two forms together in following paragraphs as 'food riots' (perhaps for a more spectacular count of events) or continue with a theoretical discussion on the possible links between food insecurity and violent conflict or instability (see e.g. Berazneva & Lee, 2013; Brinkman & Hendrix, 2010; Patel & McMichael, 2009; Simmons, 2013). Admittedly, references to the 2007-2008 food protests often only serve as an introduction to the broader topic of how international food price rises or food insecurity can have serious political consequences. However, since these are the actual cases used to demonstrate those arguments, it might serve us well to investigate them more closely.

[6] Riots are indeed rarely indiscriminate, whether directed at ethnic groups or the government (Wilkinson, 2009).

I have compiled a table on the occurrence of food protests in Africa according to different sources (see Table 1). I limit my analysis to Africa for two reasons: firstly, many protests took place in African countries - as low-income food-deficit countries (FAO, 2008) they were also among the most vulnerable to the food crisis; secondly, although 'pasta protests' in Italy are often included in accounts of food riots (see e.g. Patel & McMichael, 2009), they are rarely considered to be a cause for concern. Most people already assume the importance of intervening characteristics, e.g. initial levels of poverty (see also von Braun, 2008).

For most sources information is based on news reports, although Carter and Bates (2012) and Harsch (2008) do not specify how information was collected. However, it appears that only the Social Conflict in Africa Database (SCAD)[7] uses a systematic data collection method. Benson et al. (2008) distinguish explicitly between violent and non-violent protests, but without elaborating on their criteria. Some African countries are not included in their list. Berazneva & Lee (2013), Harsch (2008), Schneider (2008), and von Braun (2008) combine violent and non-violent actions in their reviews of 'food riots'. 'Food riot events' are marked with an X, except for Schneider who specifically refers to several news reports, with dates, so these have been included in the table. Carter and Bates (2012) only refer to 'food riots' (also marked with X), but do not explain their inclusion criteria further. Finally, SCAD was browsed for events between 01/01/2007 and 12/31/2008 that could be linked to rising food prices. For each event the start date is given, as well as the event type according to SCAD, although I sometimes only generally refer to numerous events. A broad perspective was used, meaning that events that from the description were not specifically linked to high food prices, but could theoretically be linked, have been added and marked with an asterisk. This mostly concerns wage disputes.

A couple of peculiarities arise from Table 1. First of all, data sources often combine peaceful and violent events, while the two can have very different dynamics. Secondly, there is not always a good match between the data sources. Some countries stand out specifically: Egypt, Ethiopia, Gabon, Guinea, Kenya, Madagascar, Mauritania, Morocco, Niger, South-Africa, Tunisia, and Zimbabwe. A comparison of different sources shows that our knowledge of the wave of food riots in 2007-2008 seems quite limited after all. Information on Kenya, for example, ranges from completely silent to violent protests, and while information on Zimbabwe is very unclear (see also Schneider, 2008, p. 26), it is also considered to be a 'riot country' by Berazneva & Lee (2013). A closer look at actual protest accounts raises some further problems.

It has already been noted that violent and peaceful events are often brought under the same header of 'food riot'. Yet, even when violent protests occurred, it remains the question what actually constituted the violence element of the event. Schneider (2008) provides a summary report of food riots based on news reports. For several cases information on riots is so vague that a clear event description cannot be distinguished (Mozambique, Somalia, Zimbabwe). In some cases, protesters are reported to have immediately turned to violent means (Burkina Faso, Cameroon), while in other cases it seems clear that violence in the conflict was mainly caused by (sometimes lethal) police repression (Côte d'Ivoire, Egypt, Senegal, Tunisia). Repression can therefore be seen as a more important cause for escalation, conflict and instability than food prices themselves. The violent aspect of many 'violent protests' often says more about the reaction of the state than the desperation of the poor and contradicts the more popular image of the 'food riot'. Senegal, for example, is commonly known as a stable and democratic country. The 'food riot' frame could lead to the impression that even in stable democracies, violence and instability loom when food prices rise. Yet, commentators working on Senegal specifically have also remarked then-President Wade's increasing authoritarian and repressive tendencies (see e.g. Dahou &

[7] The Social Conflict in Africa Database compiles protests, riots, strikes, inter-communal conflict, government violence against civilians, and other forms of social conflict from 1990 to 2011 for all countries in Africa with a population of over one million (https://www.strausscenter.org/scad.html).

Foucher, 2004), and the regime made a backward slide on the Polity IV scale from 8 to 7 in 2007 (Polity IV, 2012).

Table 1: Comparison of the 2007-2008 African (violent) protest accounts

	Benson et al. (2008)[i]	Berazneva & Lee (2013)[ii]	Carter & Bates (2012)[iii]	Harsch (2008)[iv]	Schneider (2008)[v]	Social Conflict in Africa Database (Hendrix & Salehyan, 2012)[vi]	Von Braun[vii] (2008)
Algeria	/					/	
Angola	/					/	
Benin	/					/	
Burkina Faso	Violent & non-violent protest	X	X	X	Febr 20, 21 2008	02/21/2008: spontaneous demonstration escalated to spontaneous riot (food prices). 03/15/2008: Organized demonstration (cost of living)* 04/08/2008 & 05/13/2008: General strike (cost of living)*	X
Burundi	/					10/23/2007: Limited strike (wage increases)* 12/03/2007: Limited strike (wage increases)* 09/22/2008: Limited strike (wage increases)*	
Cameroon	Violent Protest	X	X	X	Febr 25-28 2008	07/09/2007: Limited strike (wage increases)* 11/28/2007: Limited strike (wage increases)* 02/25/2008: Limited strike escalated to spontaneous riot (food prices)	X
Central African Republic	Not included					10/25/2008 & 01/02/2008 Limited strike (wage increases)*	
Chad	Not included					/	
Congo, Republic of	/					/	
Congo, Democratic Republic of	Not included					Numerous wage disputes*	
Côte d'Ivoire	Violent Protest	X	X	X	March 31 2008	03/26/2007: Limited strike (wage increases)* 03/31/2008: spontaneous demonstration escalated to spontaneous riot (food prices). 07/14/2008: Limited strike (increase in gas prices)*	X
Egypt	Violent Protest	X	X	X	April 6 2008	01/18/2007: Organized demonstration (food prices) 01/17/2008: Organized demonstration (food prices) 12/15/2008: Organized demonstration (trial on participation in food riots in April 2008, but this event could not be found)	X

Eritrea	Not included					/	
Ethiopia	Non-violent protest	X	X			/	X
Gabon	Not included			X		04/22/2008: Spontaneous demonstration (food prices) 10/01/2008: Limited strike (wage increases)*	
The Gambia	/					/	
Ghana	/					/	
Guinea	Violent protest	X		X	(Jan/Febr 2007) May & June 2008	05/03/2007: Spontaneous riot (wage increases, soldiers)* 09/18/2007: Spontaneous riot (cost of living)* 06/16/2008: Limited strike escalated to organized riot (wage increases, police)* 09/08/2008: Limited strike (electricity prices)* 11/03/2008: Spontaneous riot (fuel prices)*	X
Guinea-Bissau	/					/	
Kenya	Violent & non-violent protest					05/31/2008: Organized demonstration (food prices)	X
Liberia	/					/	
Libya	Not included					/	
Madagascar	Non-violent protest	X			April 2008	/	X
Malawi	/					/	
Mali	/					06/26/2007: General strike (wage increases)?	
Mauritania	Violent Protest	X		X	(Nov 2007)	11/07/2007: Spontaneous riot (food prices) – 3 cities 11/13/2007: Spontaneous demonstration escalated to spontaneous riot (food prices)	X
Morocco	Violent & non-violent protest	X		X	(March & Sept 2007) Febr 2008	09/23/2007: Spontaneous demonstration escalated to spontaneous riot (food prices)	X
Mozambique	Violent Protest	X	X	X	Febr 5 2008	02/05/2008: Organized demonstration escalated to spontaneous riot (bus fares)*	
Namibia	/					/	
Niger	Non-violent protest					06/27/2008: Spontaneous demonstration (food prices)	X
Nigeria	/					Numerous strikes (wages and fuel prices)*	
Rwanda	/					/	

Senegal	Violent & non-violent protest	X	X	X	March & April 2008	03/30/2008: Spontaneous demonstration (high prices) 05/22/2008: General strike (food prices)	X
Sierra Leone	/					/	
Somalia	Violent & non-violent protest	X	X		May 5 2008	05/05/2008: Spontaneous demonstration escalated to spontaneous riot (food prices)	X
South-Africa	Nonviolent protest					05/25/2007: Organized demonstration (wage increases)* 06/01/2007: Limited strike escalated to organized demonstration (wage increases)* 07/09/2008: Organized demonstration (food prices) 08/06/2008: General strike (food prices)	X
Sudan	/					/	
Tanzania	Not included					/	
Togo	/					/	
Tunisia	Violent Protest	X		X	June 13 2008 (Redeyef)	06/06/2007: Spontaneous riot (poor living conditions)* (Redeyef)	X
Uganda	/					02/06/2008: Limited strike (wage increases)*	
Zambia	/					unclear	
Zimbabwe	/	X			unclear	04/03/2007: General Strike (economic conditions) Numerous strikes (wage increases) 10/16/2008: Organized demonstration (food crisis)*	

[i] Benson et al. use a 2006- august 2008 time reference.
[ii] Berazneva & Lee (2013) partly use data from Harsch (2008).
[iii] Unclear whether limited to the year 2008 or the period 2007-2008.
[iv] Harsch (2008) does not claim to provide an exhaustive account. There is no clear start date for the count of protests. The article was published in July 2008.
[v] Schneider (2008) limits her search to the year 2008, with September as the last month. Not intended to be comprehensive.
[vi] Compiles events reported by the Associated Press (AP) and Agence France Presse (AFP). Browsed for events from 01/01/2007 to 12/31/2008. Events that did not seem connected to the food price rise (in any way) are left out.
[vii] Presentation published in September, 2008.

I look at three cases in more detail: Burkina Faso, Guinea, and Niger. While Burkina Faso appears to fit the food riot frame relatively well, this can also be contested. The story that appears from an IRIN (2008) news report is that protesters immediately turn to violent actions - even stoning a government delegation sent to make peace – while policymakers are desperately trying to lower prices by releasing stocks and cutting taxes. Yet, the riots also erupted in three particular cities of Burkina Faso - Bobo Dioulasso, Ouahigouya and Banfora – which have a tradition of opposition to the government (Maccatory et al. 2010). Moreover, the actual trigger to the protests could also have been – yet in the context of higher food prices- a government rise in taxation rates on basic products (Ibid.).

In the case of Guinea events seem to be 'stretched' into a food riot frame. Take the following example: *"in May and June 2008 clashes between military factions, and between the military and police lead to hundreds of injuries and several deaths. Both groups counted* ***among their demands a call for higher rice subsidies****"* (IRIN, 2008b in Schneider, 2008, emphasis by Schneider). Surely more is going on in the case of Guinea than a 'food riot'. The country's brutal history can be traced in the Polity IV (2013) country reports, with the military playing a particularly prominent role. The frame of food riot - although often unintentional – seems to place too much emphasis on the possible (and sensational) violent consequences of rising food prices, yet obscures local political factors that are more relevant causes for the actual outcome. In Table 1, we can see that for Guinea, SCAD makes no clear reference to food prices (and picks up many different events). Differences between SCAD and the other data sources are often dependent on my personal choice to include other events such as strikes over wages. Yet, this serves my point here well: on the basis of what criteria do we actually term something a 'food riot'? If the reporter had referred to the higher costs of living in the country, would all these cases have been similarly called 'food riots'?

A final problem concerns the case of Niger. According to some sources no protests took place in Niger, while others recount a peaceful protest (see Table 1). In the studies of Harsch (2008) and Berazneva & Lee (2013) the assumption that no events took place, leads the authors to see Niger as an example of negotiations to avoid food unrest. But the fact that no events (or only peaceful ones) took place in Niger can be a matter of agency. If one would look at the case of Niger from a more dynamic, long-term perspective instead of a short-term event-focused one, it would become clear that Niger is not an example in the field of food security and political stability, also beyond the period 2007-2008 (see e.g. Maccatory et al. 2010; Mueller, 2011). When studying single protest events in a cross-sectional fashion, caution is warranted in making conclusions from negative cases.

In this section I have attempted to raise some critical reflections regarding our empirical knowledge and understanding of the 2007-2008 'food riots'. Many peaceful protests have been termed 'riots' by journalists, but researchers as well. Yet while the use of violence usually says something more about the regime (e.g. repression) rather than the protesters, peaceful protesting can be considered normal democratic practice. In this perspective, it is not very surprising, or concerning, that people protest to raise attention to higher costs of living. What are the implications of the occurrence versus the non-occurrence of a peaceful food price protest? Perhaps protesting is part of the way democratic politics are conducted in a certain society, in contrast to societies where inclusivity, and immediate negotiations with civil society or corporatism are prevalent – indeed, the non-occurrence of protests can also indicate a hard repressive regime.

Secondly, researchers too often rely on what media consider to be food-related protests. (Western) media have their own 'framing' and 'gatekeeping' goals, which can obscure the actual causes of conflict, and researchers should critically engage with journalistic reports when using these as the basis of (quantitative) analyses. Divergent news sources also leads to divergent accounts of positive and negative cases (see Table 1), which can greatly influence statistical findings.

A possible remark now could be that the political impact of higher food prices will become more serious in the future – and perhaps the Arab Spring would already be included in that argument – as food prices will remain high. This is why I analyze more closely the causal links between rising international food prices and conflict/instability in the following section.

5. Food Price Rises and Conflict: Addressing the Causal Mechanisms

This section is divided into three sub-sections. The first challenges the establishment of food insecurity as a cause of conflict when international food prices increase. The second part takes a closer look at a topic in the literature which is narrowly related to food price rises and conflict, namely resource scarcity and conflict, and draws lessons from this with particular relevance to current debates. The third part does the same with regards to the topic of regime change in Africa during the 1990s.

5.1. From the Global to the Local: the Transmission of International Food Prices

The international food price rise of 2007-2008 and the occurrence of food protests has led many scholars (see e.g. Brinkman & Hendrix, 2008; Simmons, 2013) to investigate the link between food insecurity and conflict. This suggests an implicit assumption that the causal chain between increasing international food prices and conflict runs through food insecurity. The image of a rise of the hungry poor is strongly embedded here. This relationship is presupposed, however. When considering the impact of *international* food price rises, it is important to acknowledge that a myriad of factors can influence the local-level economic impact of increasing international food prices (see e.g. Benson et al., 2008; FAO, 2011), including, for example, the degree of food import dependence of a country (or region), the exchange rate, pre-existing levels of poverty, government trade and social policies, consumer vs. producer status of a household and so on[8]. As low-income food-importers, African countries were clearly specifically vulnerable to an international food price rise. Yet this relationship, based on country-level variables, does not necessarily mean that the worst affected, or the most food insecure, initiate or participate in conflict. This remains an empirical question to be investigated.

The issue is reminiscent of the well-established low GDP per capita and civil war onset link, which has been interpreted as an individual-level motivation to participate in rebellion ('greed') or as a low state capacity to deter insurgencies (see e.g. Hegre & Holtermann, 2012). Theoretically, an international food price increase can lead to conflict through other channels than food insecurity, for example if the state cuts import taxes, loses income and is therefore more easily challenged by rebel contestants. Another debate on poverty and conflict, in particular whether people participate in violent action for private material gain (greed) or a collective sense of injustice (grievance, see e.g. Gurr, 2002), can also be advanced in food prices and conflict discussions (see e.g. Barrett, 2013).

A focus on national aggregates often does not provide the means to distinguish between different possible mechanisms. This is also why large-N studies of civil war are increasingly being disaggregated, making use of more local-level characteristics (see e.g. Buhaug et al., 2011). Of course, due to constraints in data availability, disaggregating comparative analyses on international food price rises and their political consequences remains challenging. However, several initiatives

[8] Several authors have, of course, incorporated factors such as country-specific food price indexes (Arezki & Brückner, 2011), government rates of assistance (Carter & Bates, 2012), and a food production index (Berazneva & Lee, 2013). Yet these are still national (yearly) aggregates, and in the latter case, the use of FAOSTAT's National Food Production Index is actually a peculiar choice to compare food import dependency between countries as the index compares the production level of a country to its production level in the base year.

on monitoring trends in local food prices[9] are available (see e.g. FAO GIEWS Food Price Data and Analysis Tool, RESIMAO). In addition, national statistical agencies, even in developing countries, are increasingly publishing economic indicators on the sub-national-level. Using more local-level factors also helps in investigating the relationship between food insecurity and conflict in more detail, as food insecurity can be caused by international food price rises and domestic shocks.

5.2. Lessons from the Resource Scarcity and Conflict Literature

There are important parallels between the current food price/food insecurity-conflict literature and the literature on resource scarcity and conflict. The main proponents of the latter, Homer-Dixon (1999) and Kahl (2006), have argued that scarcities caused by factors such as climate change, land degradation, and population growth can lead to violent conflicts, especially in the poorest countries. Again, the types of conflict mentioned are far-ranging: from sporadic, localized violence to large-scale, sustained and organized forms of political violence. Importantly, while environmental scarcity can be an independent cause of conflict, it is never seen as a sole or sufficient cause. Context matters and environmental scarcity only produces its effects when joined with other economic, political, and social factors. For example, Homer-Dixon's 'structural scarcity' is determined by underlying inequality, and conflict can arise when predatory elites 'capture' the remaining resources- a causal process we can intuitively link to an undemocratic regime. Kahl investigated why conflict arose at certain times but not at others in Kenya and the Philippines, and stresses two crucial intervening variables, namely 'groupness', a concept relating to the unity of a group and the possibility for collective action, and institutional inclusivity, or whether grievances can be redressed by peaceful means through government responsiveness.

Although several large-N quantitative analyses have placed doubts on the scarcity-conflict link (see for an overview Theisen et al., 2012), the intricate causal processes brought forward by Homer-Dixon and Kahl have still not been sufficiently tested. As Theisen et al. (2012) state: most studies fail to account adequately for proposed indirect and conditional effects. They only use simple interaction terms, but relationships may be characterized by threshold effects and can apply only under certain conditions. This problem is inherent to the perspective taken in the resource scarcity-conflict literature, however. With resource scarcity (itself already encompassing many different phenomena) as the starting point of the analysis, the links that can (theoretically) be made to diverging forms of conflict, in divergent contexts, lead to a serious 'too many variables' problem. And this while the actual importance of the causal role of scarcity itself can be doubted.

Proponents of resource scarcity-conflict dynamics stress contextual factors as well as the independent causal role of scarcity. When it comes to actual cases, it is important to keep in mind, however, that selection is often – but not always (see e.g. Kahl, 2006) – made on the dependent variable (Gleditsch, 1998). A lot of possible negative cases exist where scarcity does not lead to conflict. For example, the Great Bengal Famine, so famously described by Sen (1991), did not lead to political unrest, while popular thinking could easily expect widespread violence and looting, especially if, as Sen claims, the famine was not caused by a shortage in food supplies.

Even in positive cases, it is not always clear whether scarcity or context should receive most attention. For example, Benjaminsen (2008) questions the necessity of the 1970s and 1980s drought for the Tuareg rebellion in Northern Mali at the time. He argues that it probably would have happened anyway due to already present conflict causes. A plausible root cause is the strong cultural, economic[10], and socio-political divide between the North and the South, or geographically

[9] Although for some regions local food prices may not be that relevant because of dependence on subsistence agriculture.

[10] The economic aspect – especially in this case – can also be linked to chronic food insecurity: a structural condition more than a trigger. Yet this is not the only aspect: there is also the political and cultural divide, and therefore the complete marginalization of a 'group'.

overlapping horizontal inequalities (Stewart, 2002). This does not have to refute Homer-Dixon's viewpoints as social channels condition the link between scarcity and conflict, but social characteristics can also lead to conflict in other ways. It does, however, show that it is not because we see scarcity in a certain case, that it has an important role in the violent conflict that takes place[11].

Similar to resource scarcity-conflict debates, food prices (or food insecurity) are linked to divergent forms of conflict in which positive cases get most attention. The role of scarcity in some positive cases is not critically analyzed and negative cases are to a large extent neglected. To account for the occurrence versus the non-occurrence of conflict, many scarcity proponents necessarily have to rely on 'context'. There is, however, a lack of engagement with this 'context' versus the economic shock factor.

5.3. Economic shocks, urban protests, and regime transitions

Resource scarcity is commonly linked to conflicts in remote rural areas. Recent food protests, however, have often taken place in urban areas[12], and have been linked by observers to the risk of political instability and regime change (see e.g. Arezki & Brückner, 2011). Adverse economic conditions and urban protests have often been connected to regime transitions in the developing world. Bates (1984) and Lipton (1976), for example, already made the connection between 'urban bias' in African economic policies and elite fears for political organization by urban citizens. They argue that in particular food prices are kept low at the expense of the agricultural sector to prevent possible militant actions by the urban workforce. Adverse economic shocks, seemingly primarily affecting urban areas, also occurred with the imposition of Structural Adjustment Programs in developing countries. Whereas Walton & Seddon (1994) investigated which factors can account for where protests were most likely to occur, Bratton & van de Walle (1997) focus on the factors that condition the actual outcomes such as regime transitions in Africa, which is actually what most observers should be more interested in.

Bratton and van de Walle (1997) investigate regime transitions in Africa in the early 1990s. They attempt to explain why some countries only liberalized, while others went one step further and democratized. They also analyze why several countries did not undertake any reforms or returned to authoritarianism after a short transition period. In many countries - but not all - protests against the economic impact of SAPs (e.g. the cutting of food subsidies) marked the start of regime transition. Yet, as Bratton and van de Walle argue: *"[economic forces] helped to create the conditions under which political change became possible, but they did not in and of themselves trigger or sustain regime transitions or determine the directions the transitions took. […] the onset and subsequent trajectory of regime transition depended on the constellation of domestic political forces"* (1997, p. 272).

Several arguments support these claims. Austerity programs and protests already started in the 1970s, yet only led to regime transition in the 1990s. The largest explanatory power for regime transition and their eventual results are politico-institutional factors that are to a large extent determined by the regime's history ('path dependency'). For example: it was crucial that a latent democratic opposition 'captured' the economic protests and guided these towards demands for democratization. In the case of domestic military intervention, the historical role of the military and its disposition towards democracy or authoritarianism determines the evolution of regime transition. Economic factors alone cannot explain such occurrences.

[11] Scarcity accounts of the Darfur conflict, for example, have also been questioned (see e.g. De Waal, 2007).
[12] Although one of Homer-Dixon 's (1999) causal mechanisms for conflict is when scarcity in remote areas induces migration and concentration in cities, leading to congestion and possibly conflict.

Bratton and van de Walle clearly show the discrepancy between protest occurrence and regime transition or political instability. Economically-inspired protests do not necessarily lead to political change. Yet, there are other, contextual factors that can account for this.

6. Conclusions and Way Forward

While some progress has been made in improving our understanding of the linkages between rising food prices and conflict, several important gaps remain. Firstly, notions of conflict and political instability are often used interchangeably, while these concepts and the relationships between them remain to some extent vague. The 'food riot' concept in particular leads to confusion. Although it is popularly seen as a violent rise of the masses, in reality, many peaceful events are gathered under this term, while violence is often committed by the state rather than by hungry consumers. The term also presupposes that food is the central issue at hand, which does not necessarily have to be the case. Many misunderstanding arise from the second gap identified in this paper: the uncritical data gathering based on international news reports. Not only are these remarkably inconsistent, they also make use of classifications which are not scientifically investigated. Finally, causal mechanisms in the relationship between rising food prices and conflict often remain assumptions in the literature and lack empirical foundation. Three crosscutting avenues for improvement therefore exist: better concept definitions, better data gathering, and more focus on contexts.

Clearly defined concepts and categorizations of conflict and instability are a necessary foundation for research on the linkages between rising food prices and conflict. For (food) protests in particular, purposeful categorizations require an enhanced insight in the events that took place on the ground. Local news sources for data gathering can prove to be more reliable than Western (English) media to accomplish this. Event descriptions are also likely to be more detailed in local sources, which allows for a first-hand qualitative analysis of causes and context.

As international food prices are likely to remain high, improving our understanding of the causal mechanisms which can lead to conflict remains crucial. We can draw important lessons from the literature on poverty and conflict, resource scarcity and conflict, and regime transition in Africa. The causal role of economic factors alone has continuously been questioned, and 'context' or prevailing political, economic, and social factors play a crucial role in the conflict outcome. The argument that adverse economic shocks seem more of a trigger to conflict rather than an important cause is not particularly remarkable in itself. Yet while many authors acknowledge this, the focus often remains on the trigger. Resource scarcity, climate change, population growth, or food insecurity often remain the starting point of analyses, with researchers consequently tracing the divergent (theoretical) possibilities for conflict. In the end, most admit that these factors do not automatically lead to conflict everywhere, and stress the importance of context. Because the theoretical possibilities for conflict are so large, however, the context factor remains rather understudied with as most agreed upon notions that elements of 'grievance' and 'collective action' are required.

It is hence important to focus more on the 'contexts' that can lead to conflict and, in doing so, to make the distinction between different forms of conflict. This also implies a data collection exercise. Contextual data are currently collected at the aggregate, national level, and only on a yearly basis, which can lead to spurious relations. While the use of these variables is increasingly questioned in civil war studies, we can also doubt their strength in the study of highly localized, one-time events such as riots. I particularly make the case for 'bringing politics back in'. The policies taken by the government are crucial in the violent escalation of social conflict (e.g. accommodation versus repression), but the only variable currently in use to explain state behaviour seems to be the country-level regime type variable (Polity IV or Freedom House), which is also used with regards to highly localized conflicts. Other ways in which politics matter, can be the strength of the political

opposition. The Muslim Brotherhood in Egypt, for example, was probably better organized than other opposition groups to make use of economic unrest.

Does this mean that triggers should be ignored completely? Not exactly. Although many possible triggers exist, some areas are more vulnerable to certain triggers than others, for example droughts in the Sahel versus international food price shocks affecting primarily well-connected urban areas (see e.g. the case of Niger). A closer look at local-level food prices (and the combination with other economic variables such as poverty or inequality) can therefore still provide valuable insights because they incorporate the effects of multiple triggers.

References

Arezki, R. & Brückner, M. (2011). Food Prices and Political Instability. IMF Working Paper.

Auvinen, J.H. (1996). IMF intervention and political protest in the Third World: A conventional wisdom refined. *Third World Quarterly, 17*(3), 377-400.

Barrett, C.B. (2013). Food or Consequences: Food Security and its Implications for Global Sociopolitical Stability. In C.B. Barrett (Ed.) *Food Security and Sociopolitical Stability* (pp. 1-34). Oxford: Oxford University Press.

Bates, R.H. (1984). *Markets and States in Tropical Africa: The political basis for agricultural policies*. Berkeley: University of California Press.

Bellemare, M.F. (2011). Rising Food Prices, Food Price Volatility, and Political Unrest. Consulted on December 16 2011 via http://marcfbellemare.com/wordpress/wp-content/uploads/2011/08/BellemareFoodPricesAugust2011.pdf

Benjaminsen, T.A. (2008). Does supply-induced scarcity drive violent conflict in the African Sahel? The case of the Tuareg rebellion in Northern Mali. *Journal of Peace Research, 45*(6), 819-836.

Benson, T., Minot, N., Pender, J., Robles, M. & von Braun, J. (2008). *Global Food Crises: Monitoring and Assessing Impact to Inform Policy Responses*. Washington, D.C.: International Food Policy Institute.

Berazneva, J. & Lee, D.R. (2013). Explaining the African food riots of 2007-2008: An empirical analysis. *Food Policy, 39*, 28-39.

Brinkman, H.-J. & Hendrix, C.S. (2010). Food Insecurity and Conflict: Applying the WDR Framework. World Development Report 2011 Background Paper.

Buhaug, H., Gleditsch, K.S., Holtermann, H., Østby, G. & Tollefsen, A.F. (2011). It's the local economy, stupid! Geographic wealth dispersion and conflict outbreak location. *Journal of Conflict Resolution, 55*(5), 814–840.

Bush, R. (2010). Food riots: Poverty, power and protest. *Journal of Agrarian Change, 10*(1), 119-129.

Collier, P. & Hoeffler, A. (2002). *Greed and Grievance in Civil War*. Centre for the Study of African Economies Working Paper Series 2002-01.

Collier, P., Hoeffler, A. & Rohner, D. (2009). Beyond greed and grievance: feasibility and civil war. *Oxford Economic Papers, 61*(1), 1-27.

Dahou, T. & Foucher, V. (2004). Le Sénégal, entre changement politique et révolution passive. « Sopi » or not « sopi » ? *Politique Africaine*, (96), 5-21.

Davis, M. (2007). *Planet of Slums*. London: Verso.

De Waal, A. (2007). *Sudan: What kind of state? What kind of crisis*? LSE Crisis States Research Centre, Occasional Paper, No.2.

Ehrlich, P.R. (1968). *The Population Bomb*. New York: Ballantine Books

FAO (2008a). *The State of Food Insecurity in the World 2008*. High food prices and food security-threats and opportunities. Rome: FAO.

FAO (2008b). An Introduction to the Basic Concepts of Food Security. EC-FAO Food Security Programme.

FAO (2011). *The State of Food Insecurity in the World 2011*. How does international price volatility affect domestic economies and food security? Rome: FAO.

Fearon, J.D. (2005). Primary commodity exports and civil war. *Journal of Conflict Resolution, 49*(4), 483-507.

Gleditsch, N.P. (1998). Armed conflict and the environment: a critique of the literature. *Journal of Peace Research, 35*(3), 381-400.

Gurr, T.R. (2002). *People versus States: Minorities at Risk in the New Century*. Washington (D.C.): United States Institute of Peace Press.

Harsch, E. (2008). Price protests expose state faults. *Africa Renewal, 22*(2), 15.

Hegre, H. & Holtermann, H. (2012). Poverty and conflict. In G.K. Brown & A. Langer (Eds.), *Elgar Handbook of Civil War and Fragile States* (pp. 39-58). Cheltenham: Edward Elgar Publishing.

Hendrix, C., Haggard, S. & Magaloni B. (2009). Grievance and Opportunity : Food Prices, Political Regime, and Protest. Consulted on December 16 2011 via http://cshendrix.files.wordpress.com/2009/06/magahaggahendrix_isa.pdf

Hendrix, C.S. & Salehyan, I. (2012). Social Conflict in Africa Database (SCAD). Consulted on October 29th 2013 via www.scaddata.org

Homer-Dixon, T.F. (1999). *Environment, scarcity, and violence*. New Jersey: Princeton University Press.

Hoyos, C. & Blas, J. (2008, June 21). West rethinks strategic threats. *Financial Times*. Consulted on October 29th 2013 via http://www.ft.com

Huntington, S.P. (1991). *The third wave: democratization in the late twentieth century*. Norman: University of Oklahoma Press.

IRIN (2008). Burkina Faso: Food riots shut down main towns. Consulted on December 11 2013 via http://www.irinnews.org/report/76905/burkina-faso-food-riots-shut-down-main-towns

Kahl, C.H. (2006). *States, scarcity, and civil strife in the developing world*. New Jersey: Princeton University Press.

Kaplan, R.D. (1994). The Coming Anarchy. *The Atlantic Monthly*.

Lacey, M. (2008, April 18). Across Globe, Empty Bellies Bring Rising Anger. *The New York Times*. Consulted on October 29th 2013 via http://www.nytimes.com

Lagi, M., Bertrand, K.Z. & Bar-Yam, Y. (2011). The Food Crisis and Political Instability in North Africa and the Middle East. Consulted on December 16 2011 via http://necsi.edu/research/social/food_crises.pdf

Lipton, M. (1976). *Why Poor People Stay Poor: Urban bias in world development*. London: Temple Smith Ltd.

Maccatory, B., Oumarou, M.B. & Poncelet, M. (2010). West African social movements 'against the high cost of living': from the economic to the political, from the global to the national. *Review of African Political Economy, 37*(125), 345–359.

Marshall, M.G., Gurr, T.R. & Jaggers, K. (2013). Polity IV Project: Dataset User's Manual.

Mueller, L. (2013). Democratic revolutionaries or pocketbook protesters? The roots of the 2009–2010 uprisings in Niger. *African Affairs, 112*(448), 398-420.

OECD/FAO (2013). OECD-FAO Agricultural Outlook 2013-2023. OECD Publishing and FAO. Consulted on October 29th 2013 via http://www.oecd.org/site/oecd-faoagriculturaloutlook/

Patel, R. & McMichael, P. (2009). A Political Economy of the Food Riot. *Review, 32*(1), 9-35.

Polity IV (2012). Consulted on December 11 2013 via http://www.systemicpeace.org/inscr/inscr.htm

Pomeroy, R. (2008, April 11). Food riots to worsen without global action: U.N. Consulted on October 29th 2013 via http://www.reuters.com

Rudé, G. (1967). *The Crowd in the French Revolution*. Oxford: Oxford University Press.

Sambanis, N. (2004). Using case studies to expand economic models of civil war. *Perspectives on Politics, 2*(2), 259-279.

Schneider, M. (2008). "We are Hungry!" A summary report of food riots, government responses, and states of democracy in 2008. Consulted on October 29th 2013 via http://www.corpethics.org/downloads/Hungry_rpt2008.pdf

Sen, A. (1981). *Poverty and famines : an essay on entitlement and deprivation*. Oxford : Clarendon.

Simmons, E. (2013). Harvesting Peace: Food security, conflict, and cooperation. Environmental Change and Security Program Report Vol. 14, Issue 3). Washington (D.C.): Woodrow Wilson International Center for Scholars.

Stewart, F. (2002). Horizontal Inequalities: A Neglected Dimension of Development. CRISE Working Paper 1. Queen Elizabeth House, University of Oxford.

Tarrow, S. (2002). *Power in Movement: social movements and contentious politics*. Cambridge: Cambridge University Press.

The Economic Times (2008, April 25). FAO chief warns of food crisis 'civil war'. Consulted on October 31st 2013 via http://articles.economictimes.indiatimes.com/

The Economist (2012, May 17th). Let them eat baklava: Today's policies are recipes for instability in the Middle East. Consulted on October 31st 2013 via http://www.economist.com/node/21550328

Theisen, O.M., Gleditsch, N.P. & Buhaug, H. (2012). Climate change and armed conflict. In G.K. Brown & A. Langer (Eds.), *Elgar Handbook of Civil War and Fragile States* (pp. 125-138). Cheltenham: Edward Elgar Publishing.

Thompson, E.P. (1971). The moral economy of the English crowd in the eighteenth century. *Past and Present, 50*(1), 76-136.

Tilly, C. (1976). Major forms of collective action in Western Europe 1500-1975. *Theory and Society, 3*(3), 365-375.

Tilly, C. (1993). Contentious Repertoires in Great Britain, 1758-1834. *Social Science History, 17*(2), 253-280.

Tilly, L.A. (1971). The food riot as a form of political conflict in France. *The Journal of Interdisciplinary History, 2*(1), 23-57.

von Braun (2008). The World Food Crisis: Political and Economic Consequences and Needed Actions. Consulted on December 11 2013 via http://www.slideshare.net/jvonbraun/the-world-food-crisis-political-and-economic-consequences-and-needed-actions

Walton, J. & Seddon, D. (1994). *Free Markets and Food Riots: The politics of global adjustment*. Cambridge (Mass.): Blackwell Publishers.

Wilkinson, S.I. (2009). Riots. *Annual Review of Political Science, 12*, 329-343.

World Bank (2013). Global Economic Monitor (GEM) Commodities. Consulted on October 29th 2013 via http://databank.worldbank.org/data/home.aspx

World Food Programme (2009). World Hunger Series: Hunger and Markets. London: Earthscan.